



RESIDENCY TRAINING PROGRAM REGISTRATION
2018-2019
CARDIOLOGY

Part One

New applications for ACVIM Residency Training Programs must be received by the Residency Training Committee 90 days prior to any residents beginning training. Before completing this form, please review the general and specific requirements for Cardiology Residency Training Programs in the ACVIM Certification Manual (CM). The most current version of the CM is available on the ACVIM website at www.ACVIM.org. If there is a discrepancy between this form and the CM, the CM will be considered correct, however, please contact the ACVIM office or the Residency Training Committee Chairperson for clarification.

Prior to making significant changes in a residency training program, approval of the ACVIM and Cardiology Residency Training Committee must be obtained. The Candidate and/or Program Director must notify ACVIM, in writing. Significant changes could include, but are not limited to: changes in Program Director or advisors, transferring from one program to another, alterations in program duration, locations of secondary site training, switching to a 'dual board' program, or enrolling in an institutional graduate program.

Notice: This form contains questions for three separate purposes; data collection that ACVIM must maintain for its accreditation as a specialty college; data collection for each specialty to evaluate what is appropriate for residency programs; and data collection to evaluate this Residency Training Program for renewal. It is important that all questions be answered accurately and completely, even if the answer to a specific question is not essential for a program's renewal.

For multi-site residency programs: To ensure uniformity of training and compliance with current CM requirements, training programs which include multiple sites must provide detailed information as to which Diplomates in the specialty of Cardiology, as well as other Specialties, will be supervising the resident(s) at each site. In this program registration form, the Program Director must provide specific, detailed information regarding supervision and facilities available at each specific site(s).

The following forms must be completed and submitted annually: **Part One** is an online form and addresses general features of the program. **Part Two** addresses aspects of training that apply to all current residents. **Part Three** addresses aspects of training that may differ amongst residents enrolled in a single program. Part Three must be completed and submitted for EACH resident enrolled in the program.

Program Director Name:

[Dr. O. Lynne Nelson](#)

(Must be a Diplomate of ACVIM in the Specialty of Cardiology or an approved ECVIM Diplomate in Cardiology)

Program Director's Contact Information:

Work Phone:	(509) 335-0711
E-mail:	olnelson@wsu.edu
Mailing Address:	Clinical Sciences, CVM Grimes Way Pullman, WA 99164-6610

1. Location of Sponsoring Institution (Residency Training Program):

Primary Site:

[Washington State University](#)

Multi-site programs, if any, are listed in Part Two.

[None listed](#)

2. Resident Advisor(s): Must be a Diplomate of ACVIM in the Specialty of Cardiology or an approved ECVIM Diplomate in Cardiology. There is no restriction on the number of Resident Advisors; however, **each Resident Advisor can supervise only two residents concurrently.**

[O. Lynne Nelson](#)
[Pamela Lee](#)

3. Supervising Diplomate(s) on-site: (Must be a Diplomate of ACVIM in the Specialty of Cardiology or an approved ECVIM Diplomate in Cardiology).

[O. Lynne Nelson - Cardiology](#)
[Pamela Lee - Cardiology](#)

4. Please list all **Diplomates** of ACVIM responsible for supervision of clinical training who are specialists in areas other than Cardiology. If off-site, please explain the situation, and the method of providing direct contact with the resident.

Name and Specialty

[George Barrington - LAIM](#)
[Katrina Mealey - SAIM](#)
[Steven Parish - LAIM](#)
[Rance Sellon - Oncology and SAIM](#)
[Janean Fidel - Oncology](#)
[Annie Chen-Allen - Neurology](#)
[Macarena Sanz - LAIM](#)
[Jennifer Slovak - SAIM](#)
[Hillary Greatting - Neurology](#)
[Jillian Haines - SAIM](#)
[Julie Cary - LAIM](#)

5. Please list the residents currently participating in your training program, along with the beginning date of the program, expected ending date of the program, and designated resident advisor. All current residents and incoming residents (if known) should be listed here. Unless specifically approved, in advance, by the CRTCC, the ratio of cardiology residents to on-site Cardiology Diplomates who are actively involved in resident training cannot exceed 2 to 1.

Resident Name, Dates of Program, (Resident Advisor) *

[Christina Plante 7.1.16 - 6.30.19 \(Pam Lee\)](#)

*** There is no restriction on the number of Resident Advisors; however, each Resident Advisor can supervise only two residents concurrently.**

Please note, any Candidate that significantly changes or alters their Residency Training Program before completion must notify ACVIM, in writing, before the changes are made to ensure that the proposed changes are approved.

Significant changes could include, but are not limited to:

- transferring from one program to another
- alterations in program duration
- switching to a 'dual board' program
- enrolling in an institutional graduate program
- change of Program Director or Resident Advisor



American College of **Veterinary** Internal Medicine

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Part Two

Part Two of the Cardiology Residency Training Program addresses general features that apply to all current residents. (Part Three must be completed and submitted for each resident.)

Current Date: April 12, 2018

Program Director Name: O Lynne Nelson, DVM, MS, Diplomate ACVIM (IM & Cardiology)

(Must be a Diplomate of ACVIM in the Specialty of Cardiology or an approved ECVIM Diplomate in Cardiology)

Name of Sponsoring Institution (Residency Training Program): Washington State University

1. Please list all **Diplomates** of the American College of Veterinary Pathology in the areas of clinical pathology or gross/histopathology associated with residency training. If off-site, please explain the situation, and the method of providing direct contact with the resident.

Name of Diplomate(s)	Clinical or Gross	Comments
Jane Wardrop	Clinical	
Clevenger Sousa	Clinical	
Steve Hines	Gross	
Timothy Baszler	Gross	
Donald Knowles	Gross	
Josh Ramsey	Gross	
Danielle Nelson	Gross	
Allen Pessier	Gross	

2. Please list all **Diplomates** of the American College of Veterinary Radiology associated with residency training. If off-site, please explain the situation, and the arrangements for direct contact with the resident.

Name of Diplomate(s)	Comments
Greg Roberts, ACVR	
John Matton, ACVR	
Tom Wilkinson, ACVR	

3. Please list the **Diplomates** available for consultation in the areas of dermatology, surgery, ophthalmology, anesthesiology, emergency/critical care, clinical nutrition, clinical pharmacology, and/or theriogenology. If off-site, please explain the situation and the arrangements provided for contact with the resident.

Name of Diplomate(s)	Specialty	Comments
Steve Martinez, ACVS	Ortho	
James Lincoln, ACVS	Ortho	
Bonnie Campbell, ACVS	Soft tissue	
Boel Franssen, ACVS	Soft tissue	
Robert Keegan	Anesthesia	
Steve Green	Anesthesia	
Katrina Mealey	Clinical Pharm	
Tami Grubb	Anesthesia	
Ahmed Tibari	Theriogenology	
Ram Kasimanickam	Theriogenology	

Terri Alessio Tina Owen Hilliary Greatting	Ophthalmology Soft tissue surgery Neurology	
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4. **Research Requirements:** In recognition of the importance of scientific discovery as a critical mission of the ACVIM, all Residency Training Programs shall include an assessment period or instruction and/or participation in creative scholarship which will foster an appreciation of, competency in, and contribution to the knowledge base of their respective specialty and which will support their development as clinician scientists. This requirement is fulfilled through satisfactory completion of A and one of B [See GIG D.2.d]:

A. Journal Club: Routine and regular participation in a critical review of the literature, a minimum of eighty (80) hours during the program. Describe how this requirement is met or exceeded.

Once weekly journal/ current literature review, every other week research studies review

B. Successful completion of any one of the options listed below. Describe how this will be fulfilled or exceeded in the individual trainee’s specific application.

1. Successful completion of at least two (2) of the following three (3) short courses/workshops offered by ACVIM either on-line or at the Forum:
 - A. Critical evaluation of veterinary medical/biomedical literature
 - B. Grant Writing
 - C. Study, design and participation in clinical trials
2. Documented submission of a grant proposal (by advisor letter)
3. Acceptance and presentation at a scientific meeting of an abstract (oral or poster) of original work
4. Documented completion (by advisor letter) of a prospective or retrospective research program pertinent to the candidate’s specialty
5. Documented completion (by advisor letter) of graduate course work in biostatistics, research methods, and/or research ethics.

1. Residents will be required to complete all 3 ACVIM short courses.
 2-4. Residents are currently required to design and implement a research project as a part of their MS/residency program. As such, they are required to submit (at minimum) an internal grant proposal and/or possibly other proposals depending upon the nature of their project or if PhD is pursued. Residents are required to present their work during seminar courses and at scientific meetings. A publication is expected.
 5. Biostatistics and Research Ethics (IACUC course) are currently required as a part of any WSU graduate program.

Note: Letters of documentation by advisors will need to accompany the final submission of the Resident Logs to the Residency Training Committee in order to qualify for a resident certificate.

5. Please indicate the availability of the following facilities or equipment. Indicate if these are available on-site at the primary training site, or at a different location. (In the Location column, indicate on-site for primary location or the name of the facility where the equipment is located if off-site.) For facilities that are not on-site, please describe the situation and availability in the space at the end of this section. See GIG E.1.h.1 for details.

	Available?		Location of equipment? (On-site or list site name)
	Yes	No	
a) Standard radiological equipment [must be on-site]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b) Ultrasonographic equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c) Echocardiography equipment [must be on-site]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d) Cardiac catheterization capability [must be on-site]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e) Endoscopy equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
GI equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Bronchoscopy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Cystoscopy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Rhinoscopy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Laparoscopy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f) Clinical Pathology capabilities: (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology, endocrinology, anatomic and histopathology)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
g) Serum osmolality measurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
h) Colloid oncotic pressure measurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
i) Electrocardiography [must be on-site]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
j) Blood Pressure Measurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
k) Electroencephalography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
l) Electromyography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
m) Brainstem Auditory Evoked Response Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
n) Nuclear Medicine [access is desirable]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
o) Computed Tomography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
p) Magnetic Resonance Imaging	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
q) Radiation Therapy Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
r) Veterinary Library w/Literature Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
s) Computerized Medical Records w/Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
t) Medical Library w/Literature Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
u) Intensive Care Facility – 24 hours	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
v) Urethral pressure profile & cystometrography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
w) Hemodialysis capability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
x) Total parenteral nutrition capability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

If any of the above equipment or facilities are available off-site, please explain how the resident can access them for case management, research, or study.

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6. Total Cardiology caseload per year:	600-700
Number of cardiac catheterizations per year:	30
Number of echocardiographic examinations per year:	450-550

7. Please list the residents who have completed the cardiology training programs at your site within the last five years, including the year that each individual’s training program started and ended. If at all possible, please indicate whether the individual has completed the board certification process.

Name(s)	Program Start Date (mm/dd/yyyy)	Program End Date (mm/dd/yyyy)	Diplomate Status (Yes or No)
Sunshine Lahmers	Jan 2002-Dec 2006		Yes (2007)
Sara Bordelon	July 2006-June 2009		Yes (2009)
Josh Stern	July 2009- 2012		Yes (2012)
Brian Maran	July 2009- June 2012		Yes (2013)
Melissa Tropf	July 2012-July 2016		Yes (2016)

8. Please list the residents currently participating in your training program, along with the beginning date of the program, expected ending date of the program, and designated resident advisor. All current residents and incoming residents (if known) should be listed here. Part Three of this form must be completed for each resident listed here. Unless specifically approved, in advance, by the CRTC, the ratio of cardiology residents to on-site Cardiology Diplomates who are actively involved in resident training cannot exceed 2 to 1.

Resident Name(s) (first/last)	Program Start Date (mm/dd/yyyy)	Program End Date (mm/dd/yyyy)	Resident Advisor Name(s) (first/last)
Christina Plante	07/01/2016	06/30/2019	Pam Lee

Please note, any Program Director or Candidate that significantly changes or alters this Residency Training Program before completion must notify ACVIM, in writing, before the changes are made to ensure that the proposed changes are approved.

Significant changes could include, but are not limited to:

- transferring from one program to another**
- alterations in program duration**
- switching to a 'dual board' program**
- enrolling in an institutional graduate program**
- change of Program Director or Resident Advisor**

As Program Director, I verify that the above information is an accurate reflection of this Residency Training Program.



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Part Three

Part Three of the Cardiology Residency Training Program addresses general features of the program that apply to each resident enrolled in the program. Please complete a separate Part Three for each resident enrolled in the program.

Current Date:

Program Director Name:

Name of Sponsoring Institution (Residency Training Program):

(Must be a Diplomate of ACVIM in the Specialty of Cardiology or an approved ECVIM Diplomate in Cardiology)

The following questions will be used to provide the Residency Training Committee with information needed to judge the structure, quality, scope, and consistency of training provided.

NOTE: Direct supervision is required during clinical training, with the time required specified by each particular specialty. Direct supervision is defined as follows: The Supervising Diplomate and resident are participating in a clinical practice in which both the Diplomate and the resident are on duty and interactively and concurrently managing cases. The Diplomate need not personally examine each patient seen by the resident, but must remain physically available for consultation. Please use this definition when responding to the following questions regarding clinical rotations.

- 1. Please provide the name of the cardiology resident for whom this application applies (leave blank at time of submission for program approval if name is not known). **Information contained in Part Three is applicable to one resident. If more than one resident is involved in the RTP, please complete one separate Part Three for each resident.**

Resident Name (first/last)	Program Start Date (mm/dd/yyyy)	Program End Date (mm/dd/yyyy)	ACVIM Cardiology Resident Advisor (first/last)
Christina Plante	07.10.2016	06.30.2019	Pam Lee

- 2. Is the duration of your program thirty six (36) months?

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

If no, explain why the program is longer than thirty six (36) months

- 3. Advanced Degree:

Degree	Yes	No	Required
Masters:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PhD:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What is the approximate time (months) dedicated to graduate work?

Please provide a description of the graduate degree program if offered, including the didactic program (course work) and inter-relationship with the residency program. Be sure to make clear how the residency requirements will be met:

The objective of a MS degree program in Veterinary Clinical Sciences when combined with a residency program is to prepare the candidate as a clinical investigator and for board certification in the specialty of cardiology. The required courses blend nicely with the clinical program as they are geared for the clinician scientist and emphasize literature review, scientific method and clinical study design. Courses are typically held in the morning or evening hours, facilitating clinical participation.

4. ACVIM Research Requirement:

Please describe how this trainee will satisfy the research requirements outlined in Part 1.9 of the Residency application (GIG D.2.d). Progress towards this requirement should be updated annually in the renewal application. Documentation of successful completion of the research requirement will need to be included in the form letter provided by the advisor that confirms the candidate's completion of this requirement. This letter should be submitted with the Resident Logs to the Residency Training Committee in the final year of their program.

1. Weekly Journal Club
2. ACVIM workshops as stated above
3. Residents are currently required to design and implement a research project as a part of their MS/residency program at WSU. As such, they are required to submit (at minimum) an internal grant proposal and/or possibly other proposals depending upon the nature of their project or if PhD is pursued. Residents are required to present their work during seminar courses and at scientific meetings. A publication is expected. Biostatistics and Research Ethics (IACUC course) are currently required as a part of any WSU graduate program. The resident supervisor will submit a letter of documentation when all components are complete.

5. Is training provided at a secondary site to fulfill a portion (not to exceed four (4) months) of the twenty four (24) months of required active (direct) supervision or to fulfill invasive procedural requirements? If Yes, please complete the remainder of this section. [See GIG E.1.a.4 for a listing of definitions related to training programs including active (direct) supervision. See GIG D.2.d]

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

If yes, describe in detail:

Please list the Secondary Site and responsible Advisor at that site (list all, if more than one):

Required training provided by supervising Cardiology Diplomates at secondary sites must be documented by a letter of both commitment and completion sent by the supervisor at the secondary site. Appropriate procedure, echocardiography and structured educational experience logs must also be signed by the supervising Cardiology Diplomat when appropriate. [See GIG E.1.a.4.]

6. Additional secondary site experiences that do not fulfill a portion of the required twenty four (24) months of active (direct) supervision or the required five hundred (500) echocardiograms, two hundred thirty (230) hours of structured educational experiences or fifteen (15) invasive procedures are supplemental (optional) experiences and do not require documentation from supervising Diplomates.

Required	<input type="checkbox"/>
Recommended	<input checked="" type="checkbox"/>

Briefly describe any secondary site supplemental outside experiences:

7. Please provide a description of how the required one hundred fifty (150) hours of cardiology focused structured educational experiences will be met or exceeded. [See GIG E.g.1]

1. Research Journal club and techniques discussions- every other week
2. Clinical Case Pathology conferences -approximately once per month are cardiology cases

3. House officer rounds- weekly, approx 2 times per month are cardiology cases

4. Seminar series- weekly presentations by house officers and faculty

5. Clinical out rotations- Human or veterinary cardiology experiences

Course requirements: (A minimum of 15 graded credit hours)

- Biostatistics
- Advanced Cardiology Topics
- Advanced Medicine Topics
- Advanced Physiology
- Seminar Series
- 20 hours Research

8. Please provide a description of how the required twenty four (24) months of active (direct) supervision will be met or exceeded as well as additional (indirect) supervision to complete the thirty six (36) month training period. [See GIG D.2.f and E.1.a.3 for definitions related to training programs including active (direct) supervision.]

Definitions from D.2.f:

Direct Supervision: The Supervising Diplomate and resident are participating in a clinical practice in which both the Diplomate and the resident are on duty interactively and concurrently managing cases. The Diplomate need not personally examine each patient seen by the resident, but must remain physically available for consultation.

Indirect Supervision: The Supervising Diplomate and resident, although participating in a clinical practice together, are not on duty simultaneously and so are not concurrently managing cases. To qualify as Indirect Supervision, the Supervising Diplomate(s) is required to have face-to-face contact with the resident for at least one (1) hour per day for four (4) days per week.

Typical residency (+MS) program averages 10 months per year of clinical service for three years, approximately 15% of this time may be under indirect supervision.

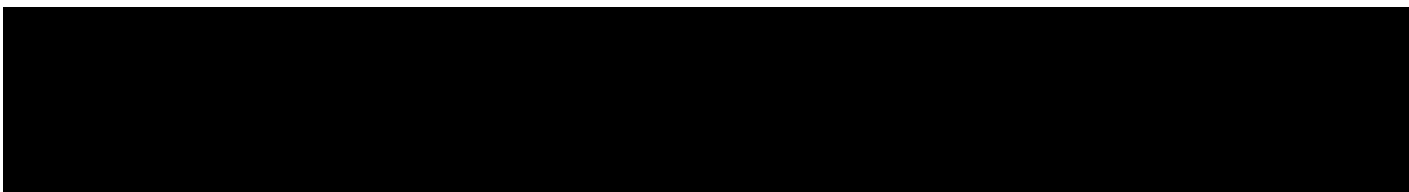
9. Please provide an outline of a typical weekly schedule

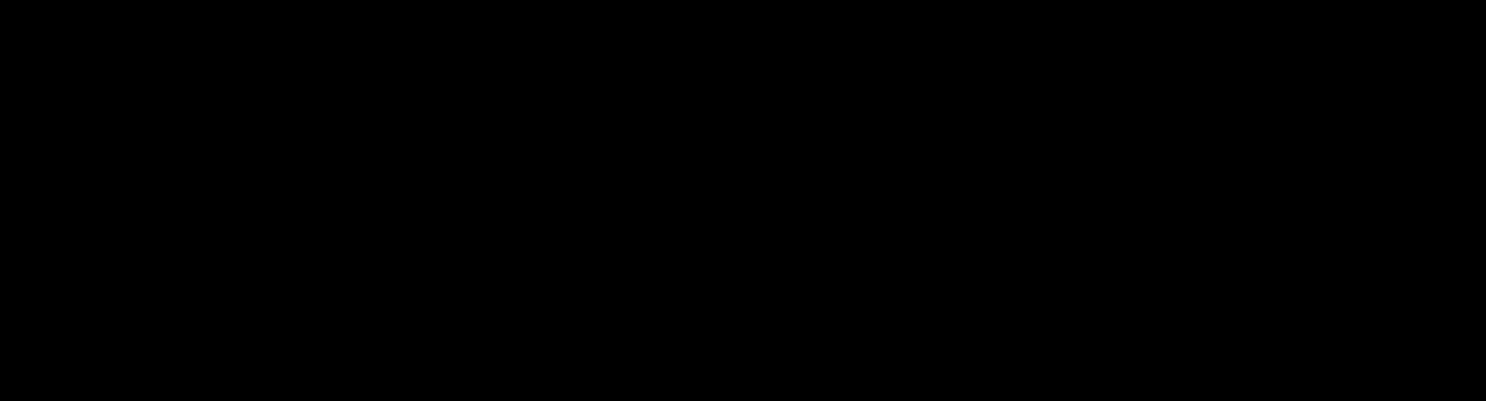
Daily: Case rounds and case appointments & management and cardiology consultations
Monday/Tuesday: Physiology and medicine courses
Wednesday AM: House officer case rounds (approximately two Fridays per month are cardiology cases)
Wednesday: Interventional procedures
Wednesday PM: Research update
Thursday PM: Pathology case rounds when appropriate
Thursday AM: Cardiology journal or text review
Friday: Seminar Series Course

Name of Residency Training Program:

Washington State University

Note: Signatures are only required on the original application submitted at the time of program registration, not on the annual updates unless significant changes to the training program occur.





Please note, any Program Director or Candidate that significantly changes or alters this Residency Training Program before completion must notify ACVIM, in writing, before the changes are made to ensure that the proposed changes are approved.

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- transferring from one program to another
- alterations in program duration
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As Program Director, I verify that the above information is an accurate reflection of this Residency Training Program.